



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,026	07/27/2000	Ashok Sengupta	54942USA4A.002	9991

7590 05/13/2002  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P O Box 33427  
St Paul, MN 55133-3427

EXAMINER

LEVY, NEIL S

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 05/13/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
--------------------	-------------	-----------------------	---------------------

**BEST AVAILABLE COPY**

EXAMINER
----------

ART UNIT	PAPER NUMBER
----------	--------------

DATE MAILED: 10

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS**OFFICE ACTION SUMMARY**☒ Responsive to communication(s) filed on 2/19/02☐ This action is FINAL.☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire \_\_\_\_\_ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

**Disposition of Claims**☒ Claim(s) 1-45 is/are pending in the application.Of the above, claim(s) 2-6, 19-40 is/are withdrawn from consideration.☐ Claim(s) \_\_\_\_\_ is/are allowed.☒ Claim(s) 1, 12, 18, 41-45 is/are rejected.☐ Claim(s) \_\_\_\_\_ is/are objected to.☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.**Application Papers**☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

**BEST AVAILABLE COPY** ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☒ Notice of Reference Cited, PTO-892☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4,69☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

- SEE OFFICE ACTION ON THE FOLLOWING PAGES -

Receipt is acknowledged of Election and IDS (2/19/02).

Applicant's election with traverse of polyurethane terminated in monol vinyllic compounds additionally polymerized with antimicrobial vinyllic monomer, of claims 1, 17 and 18 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that restriction between patentably distinct inventions requires independent or distinct invention, and a serious burden must exist, and the requirement did not provide reasons or examples to support restriction. This is not found persuasive because species as identified in applicant's examples 1-12 were the basis for the species election, not restriction requirement; and a serious burden would be required to search all species.

The requirement is still deemed proper and is therefore made FINAL.

Claims 2-16, 19-40 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 17, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no evident support for "—or polyol—" at line 7 of claim 17.

There should be <sup>NO</sup> neg in claim 18.

Art Unit: 1616

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 41-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al '98.

See conclusion= polyurethane compositions capable of self-supporting film and partially endcapped with a quaternary antimicrobial group (p. 179, pendant biocidal group on structure). The polymer composition is useful to treat solids (fibers), provide articles (coated fabrics) for medical use (p. 177) aqueous dispersion to provide films, coated fabrics are at 3, at page 179.

Claims 1, 17, 41-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Stovicek-5084096.

See claims—polyurethane is treated with quaternary biocidal end groups to provide films, coatings and articles. Column 2, summary, shows an alkylene group at attachment of the quaternary moiety to the polymer chain. See also example 4.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 17, 18, 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klesse et al 6194530 in view of Stovicek and further in view of Imazato et al 5408022 and Green et al 3931319.

Klesse provides the chain instantly claimed linking vinyl and quaternary antimicrobial groups suitable to provide antimicrobial efficacy to polymers, inclusive of polyurethanes (see claim 1), obtained as is known in the art. (col. 5, lines 45-line 65, col. 6). Resultant is an antimicrobially effective polymer of use as a film or article, or as a coating. The quaternary moiety is not specifically stated to an end group, not is polyurethane formation recited. Stovicek also uses quaternary compounds for biocidal polymer efficacy, in any number of medical device, coating and article formations (see above) of any number of polymers, including polyurethane. Other functions subserved by polyurethane with antimicrobial moieties are known, and Imazato show the instant vinyl as urethane polymerization units (col. 7, line 66-line 63, col. 8). Again, utilization

Art Unit: 1616

includes medical devices, coatings, shaped articles and films (col. 7, line 9-44). The quaternary moiety of the instant device is shown at col. 11, line 12-19, and Example 2-6, col. 12. Green is cited to show determination of polymer length of an antimicrobial polymer can be done by capping, with a quaternary ammonium moiety (col. 1, 2).

The primary reference discloses the essence of the instant invention as claimed, but does not specify, identify each and every element of the instantly claimed methods and compositions. However, the secondary references directed at the similar same methods and compositions to solve the same problems of the primary reference do provide these additional elements.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize polymeric compositions, to utilize Klesse, in order to provide antimicrobial efficacy to the desired polymer. Stovicek and Imazato show such use as beneficial, with modification to the particular form as determined by the end use of the polymer. Green further show it was old to terminate polymers with antimicrobial end group.

It has not clearly been established by objective showing of unobvious and/or unexpected results, that the administration of the particular form of active and polymer placement provides any greater level of prior art expectation as claimed. Further, no criticality as to the form of active and polymer has been shown by applicant. The selection of each of the quaternary groups, monoland vinyl groups and placement and form thereof is a result effective parameter chosen to obtained the desired effects. It would be obvious to vary the nature of each ingredient to optimize the effects desired,

Art Unit: 1616

and the use ingredients for the functionality for which they are known to be used is not a basis for patentability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil Levy whose telephone number is 308-2412. The examiner can normally be reached on Tuesday- Friday 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose Dees can be reached on 308-4628. The fax phone numbers for the organization where this application or proceeding is assigned are 305-4556 for regular communications and 305-3592 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1235.

Levy: mv  
April 26, 2002



NEIL S. LEVY  
PRIMARY EXAMINER